

Amendments to the Claims

The listing of claims replaces all prior versions, and listings, of claims in the application:

Listing of claims

Claim 1: (PREVIOUSLY PRESENTED) A system for determining if at least one gateway is at a pre-selected processing capacity, said system comprising:

said at least one gateway being responsible for managing one or more network elements, said at least one gateway communicatively coupled with one or more network elements;

said at least one gateway measuring an amount of processing performed by said at least one gateway;

a usage management system communicatively coupled to said at least one gateway, wherein said at least one gateway is operable to communicate said amount of processing performed to said usage management system; and

a management system capable of determining if said at least one gateway is at said pre-selected processing capacity based on the measured said amount of processing performed.

Claim 2: (PREVIOUSLY PRESENTED) The system of claim 1 wherein said amount of processing performed includes an amount of message handling.

Claim 3: (CANCELLED)

Claim 4: (CURRENTLY AMENDED) The system of claim 2 wherein said at least one gateway includes a Simple Network Management Protocol (SNMP) gateway responsible for managing one or more SNMP network elements, and wherein said amount of message handling includes handling of SNMP messages.

Claim 5: (CANCELLED)

Claim 6: (PREVIOUSLY PRESENTED) The system of claim 1 wherein said at least one gateway includes code executable to track said measured amount of processing performed by said at least one gateway.

Claim 7: (PREVIOUSLY PRESENTED) The system of claim 6 wherein said code includes code implemented within an Application Program Interface (API) that includes functionality that can be invoked to increment and maintain a count of one or more types of processing performed by said at least one gateway.

Claim 8: (CANCELLED)

Claim 9: (CANCELLED)

Claim 10: (CANCELLED)

Claim 11: (PREVIOUSLY PRESENTED) The system of claim 1 wherein said at least one gateway includes code executable to track amounts of different types of processing of said at least one gateway by incrementing a count maintained for a particular one of said amounts of different types of processing, wherein said different types of processing includes handling of different types of messages from said one or more network elements.

Claim 12: (CANCELLED)

Claim 13: (CANCELLED)

Claim 14: (PREVIOUSLY PRESENTED) The system of claim 1 wherein said usage management system is communicatively coupled to a plurality of gateways and is operable to poll said at least one gateway for said amount of processing to determine the measured amount of processing, and to compile the measured amount of processing into a file and provide said file to a recipient.

Claim 15: (CANCELLED)

Claim 16: (CANCELLED)

Claim 17: (CANCELLED)

Claim 18: (CANCELLED)

Claim 19: (PREVIOUSLY PRESENTED) A method for monitoring an amount of processing performed by one or more gateways that are responsible for managing one or more network elements, said method comprising the steps of:

tracking, by each of said one or more gateways, the amount of processing performed by said one or more gateways;

communicating, by each of said one or more gateways, their respective amount of processing performed to a usage management system communicatively coupled to said one or more gateways; and

determining if each of said one or more gateways is at a pre-selected processing capacity based on the amount of processing performed by each of said one or more gateways.

Claim 20: (CANCELLED)

Claim 21: (PREVIOUSLY PRESENTED) The method of claim 19 wherein said processing performed includes handling of messages received from said one or more network elements.

Claim 22: (PREVIOUSLY PRESENTED) The method of claim 19 wherein said tracking step comprises the steps of:

executing software code by each of said one or more gateways to compute said amount of processing performed, said software code including code implemented within an Application Program Interface (API);

invoking, by said one or more gateways, said API to maintain a count of a type of processing when said type of processing occurs within said one or more gateway;

tracking an amount of different types of processing including handling of different types of messages from said one or more network elements; and

executing code, in each of said one or more gateways, to increment a count maintained for one of said different types of processing responsive to an occurrence of said one type of processing.

Claim 23: (CANCELLED)

Claim 24: (CANCELLED)

Claim 25: (PREVIOUSLY PRESENTED) The method of claim 22 wherein said invoking step comprises the step of:

passing a descriptor of said type of processing to said API.

Claim 26: (CANCELLED)

Claim 27: (CANCELLED)

Claim 28: (CANCELLED)

Claim 29: (PREVIOUSLY PRESENTED) The method of claim 19 wherein said communicating step comprises the step of:

responding to polling by said usage management system of said one or more gateways for said amount of processing performed.

Claim 30: (PREVIOUSLY PRESENTED) The method of claim 19 further comprising the step of:

electronically communicating, by said usage management system, said amount of processing performed to a recipient.

Claim 31: (PREVIOUSLY PRESENTED) A gateway responsible for managing one or more network elements, said gateway comprising:

means for handling messages received from one or more network elements to which said gateway is communicatively coupled;

means for tracking an amount of processing performed by said gateway in handling said messages received from said one or more network elements; and

means for determining if said at least one gateway is at a pre-selected processing capacity based on said measured amount of processing.

Claim 32: (PREVIOUSLY PRESENTED) The gateway of claim 31 wherein said handling means includes a processor and software code executable by said processor.

Claim 33: (CANCELLED)

Claim 34: (PREVIOUSLY PRESENTED) The gateway of claim 31 wherein said tracking means includes software code implemented within an Application Program Interface (API) executable to increment a first count to track said amount of processing performed;

wherein said API includes functionality that can be invoked to maintain a second count of one or more types of processing;

wherein said software code, upon occurrence of a type of processing, invokes said functionality of said API to increment said second count for said one or more types of processing; and

wherein said software code invokes said functionality by passing a descriptor of said type of processing to said API, and wherein said API maintains a third count for said descriptor.

Claim 35: (CANCELLED)

Claim 36: (CANCELLED)

Claim 37: (CANCELLED)

Claim 38: (CANCELLED)

Claim 39: (CANCELLED)

Claim 40: (CANCELLED)

Claim 41: (PREVIOUSLY PRESENTED) The gateway of claim 31 wherein the tracking means includes software code executable to track an amount of different types of processing; wherein said software code increments a count maintained for a particular one of said different types of processing upon occurrence of said particular one type of processing; wherein said different types of processing includes handling of different types of messages from said one or more network elements.

Claim 42: (CANCELLED)

Claim 43: (CANCELLED)

Claim 44: (PREVIOUSLY PRESENTED) The gateway of claim 31 further comprising communicative coupling to a usage management system, wherein said gateway is operable to communicate said amount of processing performed to said usage management system.

Claim 45: (CANCELLED)

Claim 46: (CANCELLED)

Claim 47: (CANCELLED)

Claim 48: (CANCELLED)

Claim 49: (CANCELLED)

Claim 50: (CANCELLED)

Claim 51: (CANCELLED)

Claim 52: (CANCELLED)

Claim 53: (CANCELLED)

Claim 54: (CANCELLED)

Claim 55: (PREVIOUSLY PRESENTED) The system of claim 1 wherein said usage management system is implemented on a common platform with said management system.

Claim 56: (CANCELLED)

Claim 57: (CANCELLED)

Claim 58: (CANCELLED)

Claim 59: (PREVIOUSLY PRESENTED) The method of claim 19 wherein said method is implemented by software code executable within said one or more gateways.

Claim 60: (CANCELLED)

Claim 61: (CANCELLED)

Claim 62: (CANCELLED)

Claim 63: (CANCELLED)

Claim 64: (CANCELLED)

Claim 65: (PREVIOUSLY PRESENTED) The method of claim 19 wherein said usage management system is communicatively coupled to a plurality of said one or more gateways, said method further comprising the step of:

said usage management system compiling usage information received from said plurality of said one or more gateways.

Claim 66: (ORIGINAL) The method of claim 65 further comprising the step of:

said usage management system electronically communicating compiled usage information to a recipient.

Claim 67: (PREVIOUSLY PRESENTED) The method of claim 19 further comprising:

said usage management system electronically communicating said amount of processing performed received from said one or more gateways to a recipient.

Claim 68: (PREVIOUSLY PRESENTED) A system as in claim 1, wherein said usage management system charges a user of said at least one gateway a fee based on said amount of processing performed.

Claim 69: (PREVIOUSLY PRESENTED) A method as in claim 19, further comprising:

charging a user of a respective gateway of said one or more gateways a fee based on the amount of processing performed by the respective gateway.

Claim 70: (PREVIOUSLY PRESENTED) A gateway as in claim 31, further comprising:

means for charging a user of said gateway a fee based on the tracked amount of processing performed by the gateway.

Claim 71: (CANCELLED)